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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,197	12/16/2003	Frederic P. Field	D0188.70170US02	5833

23628 7590 06/29/2007
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BOSTON, MA 02210-2206

EXAMINER

LANG, AMY T

ART UNIT	PAPER NUMBER
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3731

MAIL DATE	DELIVERY MODE
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06/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/737,197

Applicant(s)

FIELD ET AL.

Examiner

Amy T. Lang

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-20 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12 and 21-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

All previous rejections not included in this office action have been withdrawn in light of applicant's remarks filed 4/2/2007.

Election/Restrictions

1. Applicant's election without traverse of Invention I drawn to an apparatus in the reply filed on 10/12/2006 is acknowledged. Furthermore, newly added claims 39 and 40 are also drawn to the apparatus of Invention I and therefore provide a linking claim between claim 38 and Invention I. Therefore, claims 1-11, 13-20, and 38-40 will be reviewed on the merits.

2. Claim 22 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/12/2006.

Terminal Disclaimer

3. The three terminal disclaimers filed on 4/2/2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Application No. 10/352,600 or Patent Nos. 7,131,979 and 6,511,489 have been reviewed and are NOT accepted.

4. The application/patent being disclaimed has been improperly identified the latest Assignee by Assignment 03/21/05 was not used on T.D.s. Also Walt (namemake) not Walton (complete name) was used on T.D.s.

Claim Rejections - 35 USC § 102

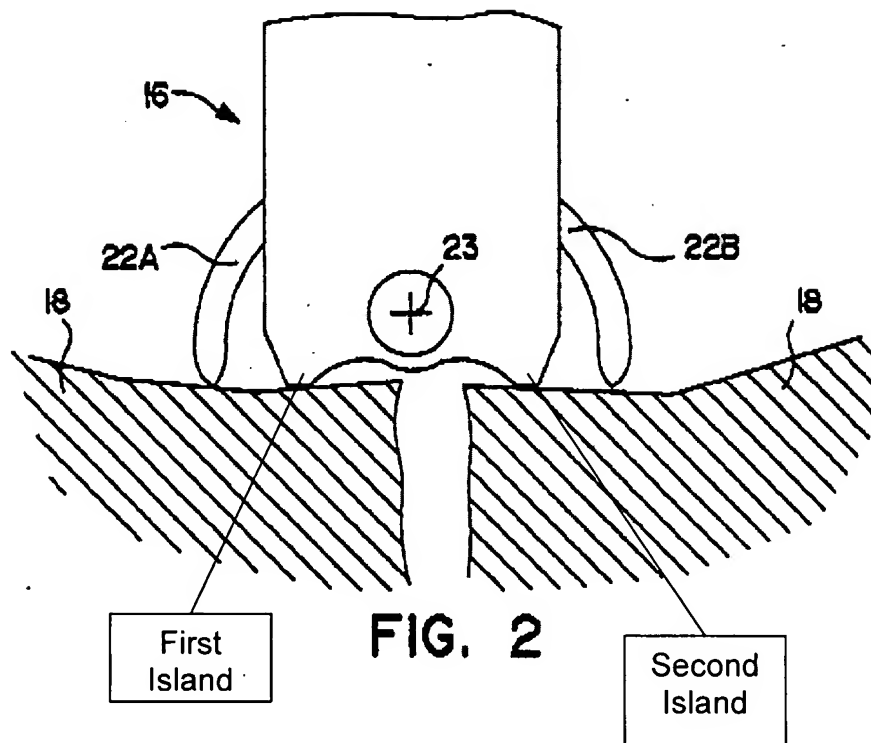
5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-6, 8-11, 13-18, and 38-40** are rejected under 35 U.S.C. 102(b) as being anticipated by Egan (US 5,417,700).

With regard to **claims 1, 3, and 17**, Egan discloses a suturing instrument (see entire document) comprising a handle (12) and a shaft (13) (Figure 1A). As shown in Figure 2 and below, the distal portion of the shaft (16) comprises two raised bodies, which clearly overlap the instantly claimed islands.



As shown in Figure in Figure 5A and below, the instrument further comprises a first channel that guides suture wire toward the opening and a second channel that receives the suture wire. Upon exiting the opening, the suture wire forms a loop. Both the first and second channels comprise a curved flat surface.

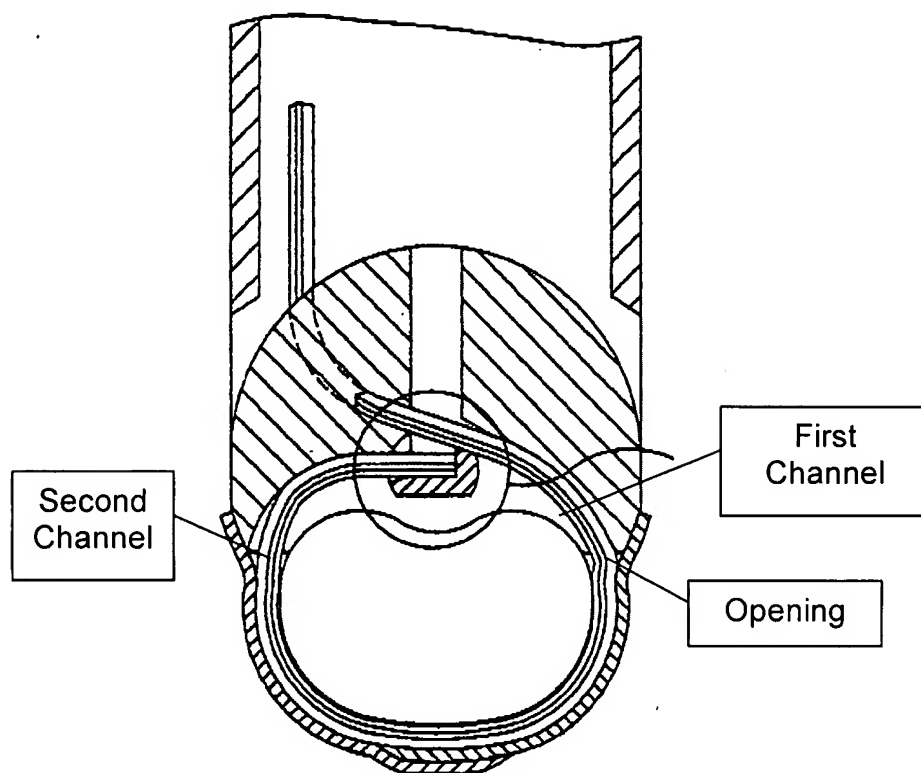


FIG. 5A

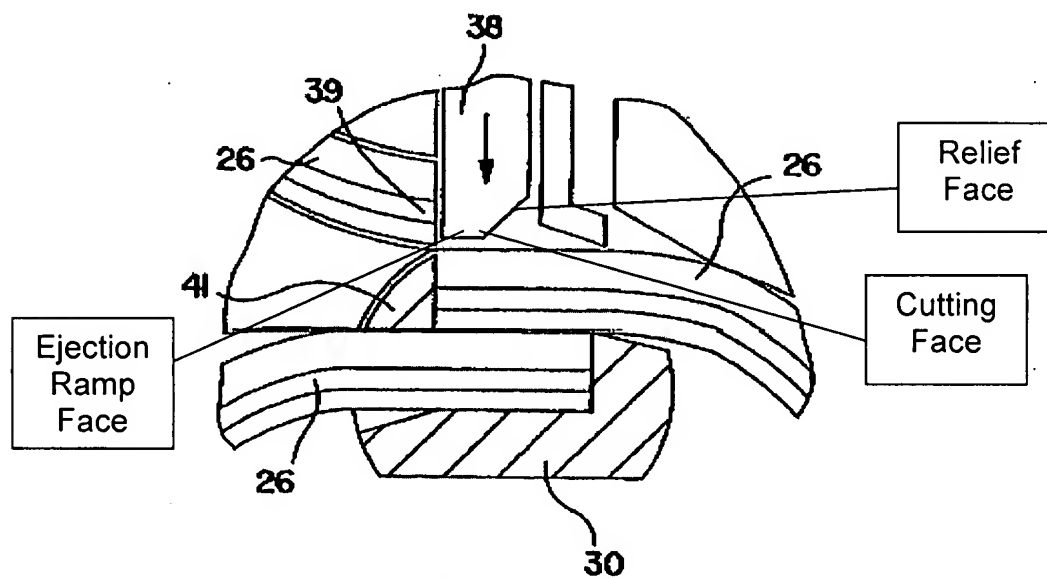
Needle (22) moves the suture material through the tissue to be sutured and therefore overlaps the instantly claimed wire drive (column 5, lines 18-28). Once the suture material forms a loop to close the wound, the two ends of the suture material are welded together (column 6, lines 12-15). Cutter (38) then cuts the suture material to free the suture loop from the rest of the suture material (column 6, lines 16-21).

With regard to **claim 2**, it is the examiner's position that the cutter of Egan is adapted to direct the suture loop away from the first and second channels in a lateral direction as shown in Figure 9B.

With regard to **claim 4**, the space between the first and second projections comprises a recess that is adapted to receive the tissue to be sutured (Figure 2).

With regard to **claims 5 and 6**, the first and second islands comprise projections that are adapted to contact the tissue to be sutured (Figure 2 and 3A).

With regard to **claim 8**, cutter (38) comprises a cutting face, a relief face, and an ejection ramp face as shown below and in Figure 9B. Although Egan does not specifically disclose the relief face as adapted to bend the suture loop around the islands and the ejection ramp face as adapted to direct the suture loop laterally away from the first and second channels, it is the examiner's position that both faces are adapted to meet the claimed embodiments.



With regard to **claim 9**, is the examiner's position that the cutting face also overlaps the instantly claimed ejection push face since the cutting face pushes the suture loop distally.

With regard to **claims 10 and 11**, Egan teaches that the suturing instrument sutures tissue and the like, which encompasses mesh (column 1, lines 15-22).

With regard to **claim 13**, as shown in Figure 10A, Egan discloses a passageway for cutter (38) disposed between the first and second islands. The distance between the passageway and the islands is greater than the width of suture material.

With regard to **claim 14**, the first and second channels, as shown in Figure 9A and below, are undercut.

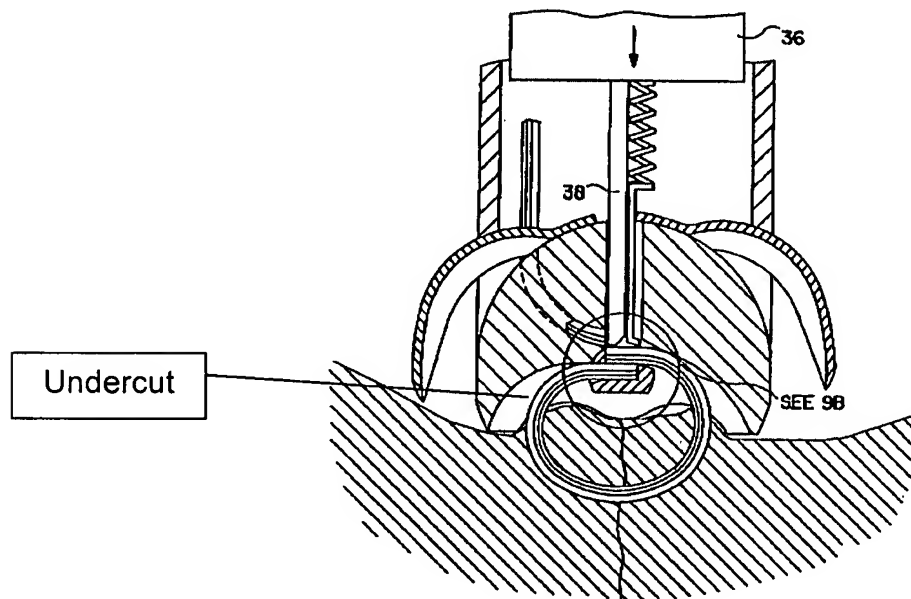


FIG. 9A

With regard to **claim 15**, in one embodiment the wire drive (22) moves the exact amount of suture material so that it is adapted to advance a predetermined length of suture material (column 5, lines 46-48).

With regard to **claim 16**, a multi-function trigger (15) activates the wire drive and the cutter (column 5, lines 1-5).

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With regard to **claim 18**, as shown in Figure 9B, the cutter (38) cuts the suture material so that a sharp point is formed on the corner of the cut suture.

With regard to **claims 38-40**, as shown in Figure 4A through 11B, Egan teaches a method to form a suture loop in tissue comprising driving the suture material through a first curved channel. The suture material is then curved away from the instrument in a curved trajectory. The suture material then enters a second curved channel and the trailing end of the suture is cut. As shown in Figure 8A through 9B, the leading and trailing ends of the suture are bent inward when welded together to form a loop.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claims 7 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Egan (US 5,417,700).

Egan discloses a suturing instrument comprising a first and second channel to form a suture loop in tissue. However, Egan does not specifically disclose wherein one island projection is longer than the other and the shaft is detachable.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide one projection longer and a detachable shaft because Applicant has not disclosed that these limitations provide an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with projections the same size and the shaft as not detachable because the device would still form a suture loop as claimed. Therefore, it would have been an obvious matter of design choice to modify Egan to obtain the invention as specified in the claims.

10. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Egan (US 5,417,700) in view of Meade (US 5,437,681).

Egan discloses a suturing instrument comprising a first and second channel to form a suture loop in tissue. However, Egan does not specifically disclose a suture supply cartridge.

Meade also discloses a suturing instrument wherein the instrument comprises a cartridge containing suture material (column 2, lines 51-53). Therefore it is known in the art to provide a suture supply cartridge so that it would have been obvious to one of

ordinary skill at the time of the invention for the suturing device of Egan to also have a suture supply cartridge.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy T. Lang whose telephone number is 571-272-9057. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/19/2007

ATL


(JACKIE) TAN-UYEN HO
PRIMARY EXAMINER
6/22/07